



Cellulosic Ethanol Workshop

November 8th, 2006

- **Fund overview**
- **What do we look for in start-up companies?**
- **What is our view of the cellulosic ethanol opportunity?**

Massachusetts Green Energy Fund: Overview

- **\$17mm privately-held VC fund investing in Mass clean energy companies**
- **Objective: Strong financial return for our investors**
 - Diversified portfolio of 10-15 high-growth companies
 - 3-5 year exits
- **Massachusetts Renewable Energy Trust is a key partner**
 - MRET is our first and largest investor
 - Provides leverage to Fund and portfolio companies
 - Clean energy deal flow
 - Network of business and academic expertise
 - Seed and supplementary grant funds for pre- and co-investment



Massachusetts Green Energy Fund: Current Investments



Low cost PV power < \$1/w
High speed, low cost reel/reel manufacturing



Integrated photovoltaic technology for remote power applications
Initial product is a solar compactor -- improves the efficiency of institutional and municipal waste collection



Semiconductor-based solid oxide fuel cells for long-duration portable consumer electronics
Significant performance advantage over Li-Ion batteries



Fuel cell stacks and systems for portable power, 3-5x stack cost advantage
AIM listed July, 2006 (PTX)



Enables fuel cells to run on gasoline, propane, diesel
Dramatically lowers the cost of portable and distributed hydrogen generation.

MembraneCo

Novel membrane technology used to significantly reduce cost of producing bioethanol, biobutanol
Platform technology applies to natural gas processing, too

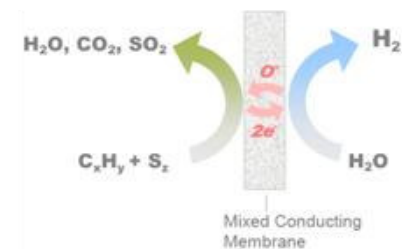
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What do we look for in start-up companies?

1. Strong leadership team

2. Proprietary technology

3. Large market



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What is our view of the cellulosic ethanol opportunity?

- We look for opportunities that are:
 1. Capital efficient
 2. Technological break-throughs
 3. Applicable to multiple markets and end products

What is our view of the cellulosic ethanol opportunity?

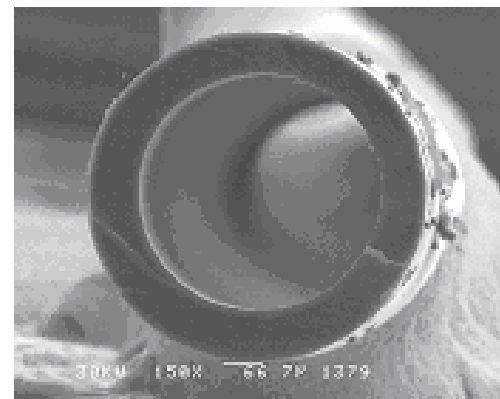
MembraneCo

- MGEF lead \$2.25M investment round; brought in \$1.5M from overseas investor
- Key technology: proprietary high-performance porous membrane for separation applications which other membranes cannot address
- Novel membrane technology used to significantly reduce cost of producing bioethanol, biobutanol
- Platform technology applies to processing of various other liquids and gases, too

Membrane cartridge assembly for processing of gas and/or liquids



Close-up of membrane in hollow fiber configuration



Thank you!

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